

Claims

[c0001] 1. A crosstie made substantially from recycled rubber comprising:

10–35% by weight recycled rubber from natural rubber tires;

65–90% recycled vulcanized rubber; and,
a strength enhancing polymer of no more than 5% by weight.

[c0002] 2. The recycled rubber crosstie of claim 1 wherein said crosstie has at least one longitudinal side which has a plurality of indentations.

[c0003] 3. A method for producing a crosstie made substantially from recycled rubber comprising the steps of:
providing vulcanized recycled crumb rubber and natural recycled crumb rubber;
mixing by weight 10–35% said natural recycled crumb rubber and 65–90% said vulcanized crumb rubber to form a blend; and adding a strength enhancing polymer to said blend, the amount of polymer to add between 0–5% of the total weight of said blend;
milling said blend at between 240 degrees F and 370 degrees F (116–188 deg C) to form an intermediate

product;
extruding said intermediate product at between 240 degrees F and 370 degrees F (116–188 deg C) to form an extrusion having a specific width and depth; and,
thereafter cutting said extrusion at intervals to yield a crosstie having the desired length.

[c0004] 4. The method of claim 3 further comprising after said thereafter cutting said extrusion at intervals to yield a crosstie of the desired length step:
creating a plurality of pre-holes on one longitudinal side of said crosstie, the position of said pre-holes corresponding to the position that spikes will be driven into said crosstie.

[c0005] 5. The method of producing a crosstie according to claim 3 wherein said strength enhancing polymer is selected from the group comprising neoprene, polyethylene, urethane and ABS.

[c0006] 6. The method of claim 5 further comprising after said thereafter cutting said extrusion at intervals to yield a crosstie of the desired length step:
creating a plurality of concave-type pre-holes on one longitudinal side of said crosstie, the position of said pre-holes corresponding to the position that spikes will be driven into said crosstie.

[c0007] 7. The method of producing a crosstie according to claim 3 further including a means to form a plurality of indentations in at least one side of said extrusion.

[c0008] 8. A crosstie comprising:

an extruded product made from a blend of recycled natural crumb rubber and recycled vulcanized crumb rubber where 10–35% of the crosstie weight is recycled natural rubber, 65–90% of the crosstie weight is recycled vulcanized rubber and a strength enhancing polymer accounts for no more than 5% of the crosstie weight.

[c0009] 9. The recycled rubber crosstie of claim 6 wherein said crosstie has at least one longitudinal side has a plurality of indentations.